U.S. Environmental Protection Agency
Region 10

Response to Comments

Municipality of Anchorage
Eagle River Wastewater Treatment Facility
NPDES Permit No: AK-0022543

Introduction

The public comment period for the draft permit for the Eagle River facility bean on January 28, 2000, and expired on February 28, 2000. EPA received one comment letter during the comment period, from the Municipality of Anchorage. EPA also received stipulations for the permit in the State of Alaska 401 certification and determination of consistency with the Coastal Zone Management Act.

Responses to Individual Comments

Comment: The effluent limit for fecal coliforms should be raised to a geometric mean of 100/100 mL with not more than 10 percent of the samples exceeding 200/100 mL in order to allow for use of the mixing zone and to provide greater flexibility for potential UV disinfection

Response: To promote the use of disinfection methods (such as UV disinfection) that eliminate the use of disinfection chemicals, the State of Alaska stipulated in its 401 certification that the existing mixing zone will apply to fecal coliform discharges, and that the effluent shall be limited to a 30 day geometric mean of 100/100 ml and a daily maximum of 200/100 Ml.

Comment: Routine ammonia monitoring frequency should remain monthly. Ammonia monthly average for 1998/1999 was 0.35 mg/L - only 4% of the winter ammonia permit limit. This justifies a monitoring reduction to once per six months according to EPA guidance. The permit fact sheet (page 8, Section V.A.) cites an elevated ammonia level in 1995 as the reason for the proposed increased monitoring frequency. The facility experimented during 1995 with ways to increase the plant effluent pH, which was close the permit limit. A lower solids inventory was maintained in the aeration basin to limit ammonia removals, thereby increasing the effluent pH. The ammonia and the pH went up as predicted. A chronic toxicity test was coincidentally run during this period and the tests showed some toxicity. It was believed the intentionally increased ammonia levels caused the toxicity. Given that, we abandoned this experimental operational strategy to raise the pH. The ammonia results have remained extremely low since then. The added requirement for monitoring ammonia during toxicity testing will double the current monitoring frequency even if the routine frequency is maintained at monthly.

Response: EPA agrees that more recent ammonia levels are well below the permit limits. EPA also agrees that monthly routine sampling, combined with the addition of ammonia monitoring during toxicity testing, will provide an adequate amount of monitoring for this pollutant. The final permit has been changed accordingly.

Comments Reduce fecal coliform to 4/month to make scheduling easier and consistent with Girdwood request. Fecal coliform monthly average is only 5% of

current permit limit (justifying 1 per 2 months monitoring by EPA guidance) and we are requesting an increase limit.

Response: EPA has changed the fecal coliform monitoring to "weekly", consistent with scheduling for other parameters in the permit. The change eliminates the need for Footnote 1 in the draft permit. It has been deleted and the other footnotes are re-numbered in the final permit.

Comment: Footnotes 5 for quarterly metals is probably not intended - it appears to be a holdover from the current permit.

Response: The commenter is correct that this footnote was a typo.

Comments: Specify that the frequency of chronic toxicity testing be reduced to annually if four consecutive tests show no toxicity. Eagle River is an advanced wastewater treatment facility serving a non-industrialized area. The only incident of toxicity in the past occurred when the ammonia level in the effluent was intentionally raised as described above. That situation in not expected to occur again and hence toxicity is not expected to occur again.

Response: EPA agrees that it is reasonable to reduce the toxicity frequency after four consecutive tests show no toxic effects. The permit has been changed accordingly.

Comment: Add note that UV disinfection, rather than chlorine disinfection may be installed in the future.

Response: The permit record, including the 401 certification and this response to comments document, notes the possibility that UV disinfection will be installed in the future. An additional statement in the permit is unnecessary

Comment: Section II.B.13 requires reporting of toxicity results to ADF&G at a different time than that required for EPA and ADEC. To simplify things we suggest reporting to ADF&G at the same time as EPA and ADEC.

Response: EPA agrees and has changed the language in this section accordingly.

Comment: Toxicity Testing - Specifies that three additional tests shall be conducted within 15 days on a bi-weekly basis. This requirement is not physically possible as it is currently worded since three bi-weekly tests will take a minimum of 5 weeks to conduct (weeks 1, 3, and 5). Suggest changing wording to "15. If chronic toxic effects are demonstrated, the permittee shall, within 15 days of notification by the laboratory: (a) Initiate 3 chronic..."

Response: EPA agrees and has changed the language in the section accordingly.

Comment: It should be recognized that the ambient monitoring program is biasing the data towards the worst-case conditions as the result of the high TSS levels during the summer months and the data may not be appropriate for determination of TMDLs.

Response: EPA disagrees that the summer ambient monitoring program is "biasing the data". TMDLs and water quality-based permits must be meet water quality standards under all seasonal conditions. In this case, EPA proposed a summer monitoring program to reduce the costs to the facility of year-round monitoring.

Copper and lead levels exceeded Alaska water quality standards in each of the locations in July 1996. This included an upstream station (ER-1) which provides information about natural background concentrations. The elevated metals levels on the July 1996 sampling day appeared to correspond to higher flows and suspended solids levels in the summer.

Because the monitoring to date raises questions about the range of natural conditions and the appropriate water quality standards for the river during the summer months, EPA believes further ambient monitoring during summer months is appropriate.

Comment: We recommend deleting station ER-2 from the ambient monitoring program. In the original study, ER-2 which is located on the south branch of Eagle River off of Highland Road, was found to be very different from the main branch of the river and not representative of conditions downstream. The south branch of the river flows from Eagle Lake, and was found to below in TSS and metals during all seasons and obtained events. It is not expected that any new or useful data will be obtained from this site during the proposed monitoring effort. USGS found the south fork to have only 9% (12.7 cfs) of the total flow (136.8 cfs) on May 8, 1974. Flow on the main north fork branch typically increases to 1000-2500 cfs as a result of glacial melt during the summer months which would be over 99% of the total flow during the monitoring program. Based on past results and flow information, it would appear the Station ER-2 is not representative of Eagle River as a whole and it contributes less than 1-2% during the summer discharge period.

Response: EPA agrees to remove the requirement for monitoring at station ER-2 based on the relatively low contribution of summer flows from the south branch to the mainstem.

Comment: The draft permit requires the continuation of past methodology for ambient monitoring for metals. In order to obtain useful dissolved metals information, trace-level clean metals methodology will be required in the field and by the laboratory which require an additional extraction step. It is expected that at some point in the future the State will base their criteria on dissolved metals. With this in mind, it would be good to obtain the low-level dissolved metals data.

Response: EPA supports the use of "clean" methodologies and low-level analyses for metals monitoring.

Comment: We suggest reducing ambient monitoring to a four month period which would be consistent with how summer is defined in Section II.B.7 for toxicity (June 1 thru September 30). We also suggest that the monitoring be conducted in the first and third year of the permit, rather than for three years.

Response: EPA agrees to reduce the ambient monitoring period to June through September. However, EPA believes three years of monitoring is needed to evaluate background conditions. Therefore, the requirement for three years of monitoring remains unchanged.

Comment: The following typos and holdovers from the previous permit were identified by the commenter:

Section	Typo
II.B.17	Toxicity **Identification** Evaluations
II.E.	ADEC address has changed to 555 Cordova Street, 99501.
II.J.1.b.	Bypass of Treatment Facilities is Part III.G, not IV.G.
II.J.1.c.	Upset Conditions is Part III.H., not IV.H
II.J.3.	Compliance phone number is incorrect.
II.O.	This section not applicable.
III.G.2.b.	Twenty-four Hour Notice of Noncompliance Reporting is Part II.J, not II.I
III.H.2.c.	Twenty-four Hour Notice of Noncompliance Reporting is Part II.J. not II.I.
III.H.2.d.	Duty to Mitigate is Part III.D., not IV.D
IV.E.3.	Authorization paragraph is IV.E.2., not IV.H.2

Response: EPA appreciates the careful review of the draft permit and has corrected these typos in the final permit.

Stipulation of 401 Certification

EPA has made the following changes to the draft permit based on stipulations of the State of Alaska 401 certification of the permit:

1. Addition of a daily maximum flow limit of 2.5. million gallons per day.
2. Modification of fecal coliform limits based on authorization of mixing zone.
3. Addition of ambient fecal coliform monitoring.
4. Addition of requirement for public information signs to be placed near the outfall.